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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/025,543

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EXAMINER

PATEL, JAY P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,543

Applicant(s)

MIZELL ET AL.

Examiner

Jay P. Patel

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2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 3-4, 6 and 12 are rejected under the second paragraph of 35 U.S.C. 112.
3. In regards to claim 3, it recites the limitation "a key of the table" on line 16 and furthermore recites the limitation "a first key of the table" on line 18 and furthermore recites the limitation "a first service marking" on line 19. These limitation are vague and indefinite due to the fact that it is unclear whether the applicant regards "a first key of the table" on line 18 as referring to or distinct from "a key to the table" recited on line 16; furthermore, is also unclear whether the "a first service marking" recited on line 19 is referring to or distinct from as "a service marking" recited on line 6 in claim 1. Claim 4 also contains similar vague and indefinite language.
4. In regards to claim 6, it recites the limitation "a key" on line 9. This limitation is vague and indefinite due to the fact that it is unclear whether this limitation is referring to or distinct from "at least one key" recited on line 6.
5. In regards to claim 12, it recites the limitation "the mobile device" on line 9. This limitation is vague and indefinite due to the fact that it is unclear whether this limitation is referring to or distinct from "a mobile terminal" recited on line 1.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kari et. al (US Patent 6603738 B1).

3. In regards to claim 1, Kari discloses a method to form queues in routers based on quality of service, connection, subscriber and/or application/application class. In figure 1 Kari discloses parts of the mobile system essential for the method to be carried out (see figure 1, and the abstract). This apparatus and disclosure of the method anticipates a method of processing data traffic in transit in a mobile telecommunications system.

In further regards to claim 1, Kari discloses that queues are formed in a router on the basis of a subscriber-specific-identity and application class (see column 5, lines 39-41). The forming of the queues in such a way, anticipates filtering a packet of data for an application associated therewith.

In further regards to claim 1, Kari discloses that when a subscriber registers in a system, the data is assigned a queue of its own; when several applications are started by the subscriber at the same time, a separate queue is provided for each simultaneous

application (see column 5, lines 41-45). The separate queues for each simultaneous application, anticipate, applying a service marking to the packet dependent on the application associated with the packet.

In regards to claim 2, Kari discloses that the application can be identified unambiguously on the basis of a port number of a TCP protocol (see column 5, lines 33-34). This identification anticipates, reading a port from the packet and determining the application from the read port.

In regards to claim 3, Kari discloses that since TCP processes are also separate entities, they too can be distinguished from each other. Each GPRS subscriber can be identified when the parameters of the subscriber are checked from a GPRS register of some other database (see column 5, lines 35-38). The GPRS register and the storing of the parameters in it, anticipates, interrogating a table with the read port, the table including an index of at least one port, each of the at least one port comprises a key of the table, a record having a service marking respectively associated with each key. Furthermore, since every application can be identified on the basis of a port number of a TCP protocol (see column 5, lines 33-34), Kari also anticipates, determining the read port has a match with a first key of the table; and since the parameters of the GPRS subscriber can be checked from a dataset, Kari also anticipates, returning a first service marking included in a record associated with the first key.

In regards to claims 4 and 8, Kari discloses that the quality of service can be signaled to the routers on the packet network by providing each packet with a code indicating the quality of service (see column 5, lines 65-66 and column 6, line 1). The

code indication the quality of service anticipates, writing the first service marking into a field of the packet.

In regards to claim 5, 10 and 14, Kari discloses that since GPRS specifies four alternative qualities of service it is possible to identify them by two bits (column 6, lines 1-3). The four specific service classes, anticipate, a differentiated service code point.

4. In regards to claim 6, the SGSN 15 in figure 1, functions as a router and buffers data in a queue and forwarding it through a base station system BSC-BTS to a mobile station MS and a PC connected to it (see column 5, lines 17-21). The SGSN anticipates a node of a mobile telecommunication network operable to deliver at least one packet to a mobile device serviced by the mobile telecommunication network.

In further regards to claim 6, Kari discloses that the air interface Um, forms a clear bottleneck and therefore a queue is formed at the SGSN node (see column 5, lines 21-22). The Um interface anticipates an interface to at least one network node.

In further regards to claim 6, each GPRS subscriber can be identified when the parameters of the subscriber are checked form a GPRS register or some other database (see column 5, lines 35-38). The GPRS register and the parameters stored in it anticipate, a table comprising an index including at least one key, each key having a record associated therewith, each record having a service marking therein, the node operable to interrogate the table with an identification of an application obtained from the packet. Furthermore, since every application can be identified on the basis of a port number of a TCP protocol (see column 5, lines 33-34), and since the parameters of the

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GPRS subscriber can be checked from a database, Kari also anticipates, the service marking returned to the node upon a match between the identification and a key.

In regards to claims 7 and 11, the SGSN 15 in figure 1, functions as a router and buffers data in a queue and forwarding it through a base station system BSC-BTS to a mobile station MS and a PC connected to it (see column 5, lines 17-21). The SGSN anticipates the access router that interfaces the mobile telecommunication network with an external network.

In regards to claim 9, Kari discloses that an arriving packet, can be conducted to a queue assigned to it on the basis of a subscriber-specific and/or QOS criterion; the criterion includes a transport layer process (TCP) that can be identified on the basis of the identity of a TCP session. This TCP identification anticipates, a differentiated services field of a transport layer header encapsulated in the packet.

5. In regards to claim 12, Kari discloses that each GPRS subscriber can be identified when the parameters of the subscriber are checked form a GPRS register or some other database (see column 5, lines 35-38). The GPRS register and the parameters stored in it anticipate, a first node including table comprising one or more keys and at least one record associated with each of the one or more keys having a value indicative of an application, each of the one or more records having a service marking stored therein.

In further regards to claim 12, Kari discloses a base station subsystem comprising of a base station controller and a base transceiver system (see figure 1).

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This base station subsystem anticipates, a base station subsystem operable to transmit data to the first service node and receive from the first service node.

In further regards to claim 12, the base transceiver station BTS in figure 1, communicates with mobile station MS over an air interface therefore, Kari anticipates at least one base transceiver station operable to provide radio frequency links to the mobile device.

In further regards to claim 12, the SGSN buffers data in a queue, forwarding it through a BSC-BTS to a mobile station MS and a PC connected to it (column 5, lines 17-20). The SGSN's ability to buffer data, anticipates the first service node operable to receive a first packet.

Furthermore, the application can be identified unambiguously on the basis of a port number of a TCP protocol (column 5, lines 33-34). The unambiguous identification of the application anticipates a determination of an application within a packet.

Furthermore, each GPRS subscriber can be identified when the parameters of the subscriber are checked from a GPRS register or some other database (see column 5, lines 35-38). The GPRS register or database anticipates interrogating the table with a query value indicating of the application. Furthermore, since every application can be identified on the basis of a port number of a TCP protocol (see column 5, lines 33-34) and since the parameters of the GPRS subscriber can be checked from a dataset, Kari also anticipates a service marking being returned upon matching the query value with a first key value ante the service marking maintained in a record associated with the first key value. Furthermore, the quality of service can be signaled to the routers on the



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packet network by providing each packet with a code indicating the quality of service (column 5, lines 65-66, and column 6, line 1). This code anticipates the node operable to write the service marking into a field of the packet, the node operable to transmit the packet across the telecommunications network.

In regards to claim 13, since an application can be identified on the basis of a port number of a TCP protocol (column 5, lines 33-34), Kari also anticipates each value of the one or more keys is a port number.

In regards to claims 15 and, Kari discloses that SGSN node or router can store quality of service information in its memory (see column 6, lines 8-9). The memory anticipates the service node comprising of the memory. The central processing unit is anticipated by the ability of the SGSN node to classify the packets in to QOS service classes as disclosed with regards to claim 1. The filter is anticipated by the ability of the SGSN node to buffer data in a queue based on QOS requirements. The identification of the application on the basis of the port number (see column 5, lines 33-35) anticipates a port number field of the packet read by the filter, the value of the port number read used by the node to interrogate the table index.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jpe 10/12/05  
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